

Patient Oxygen Distribution System (PODS) Alarm Adjustment Procedure

Purpose: Provide a method for adjusting the PODS low pressure alarm setting when the PODS is used with the Portable Oxygen Generation System (POGS33) or other oxygen systems that distribute oxygen at pressures lower than 80 psi.

Product Support Bulletin: Pacific Consolidated Industries (PCI), Alarm Adjustment Procedure for Low Pressure Alarm Assembly, 340030 Rev B, 11 Nov 2010, see attached.

Equipment:

PODS, Patient Oxygen Distribution System, NSN 6530-01-447-4932

Low Pressure Alarm Assembly, 80 psi, 110 VAC, Part Number 792379-001

EDOCS120B-21, Concentrator Oxygen, NSN 6515-01-529-4862

POGS33, Generator Oxygen Medical System, NSN 6530-01-533-4481

Summary: The PODS was designed to operate with the Expeditionary Deployable Oxygen Concentration System (EDOCS). The EDOCS output pressure is set to distribute oxygen at 80 to 100 psi. The PODS low pressure alarm is set at 80 psi. If the oxygen pressure in the PODS drops below 80 psi the alarm assembly produces an audible alarm and red lamp indication. This alerts the clinical staff that there may be an issue with the oxygen generating system, a leak in the distribution system, or the system is being over drawn (too much demand). When the oxygen generation system in use is the POGS33, the output pressure is 50 to 60 psi. The PODS alarm, as originally set, is outside the distribution range of the POGS33. In order to use the PODS alarm with the POGS33, the alarm requires adjustment. Follow the procedure as outlined in the PCI, Alarm Adjustment Procedure for Low Pressure Alarm Assembly to reduce the set point of the PODS alarm from 80 psi to 50 psi. This procedure can also be used to return the alarm setting to 80 psi if the PODS is again used with the EDOCS.



POGS33



EDOCS



PODS Alarm Assembly



PRODUCT SUPPORT BULLETIN

ALARM ADJUSTMENT PROCEDURE FOR LOW PRESSURE ALARM ASSEMBLY

PART NUMBER: 792379-001
 792379-002

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RECORD OF REVISIONS

REVISION	DATE	DESCRIPTION	DCN
N/C	2 August 2010	Initial Release	2797
A	24 Sept 2010	Deleted: Step 12 Revised: Moved Step 16 to Step 12.	2847
B	11 Nov 2010	Added: Test setup diagram, 120 Vac Warning & Adjustment direction clarification	2863

EFFECTIVITY

The instructions in this bulletin apply to the following Low Pressure Alarm Assembly part numbers:

- ☛ 792379-001
- ☛ 792379-002

INTRODUCTION

The alarm assembly can be set to react to a specific pressure per your requirement. This bulletin has the instructions to set the assembly to alarm at 50 psig.

MAN POWER REQUIREMENTS

This bulletin requires 15 minutes for one man to complete one alarm assembly.

REQUIRED TEST EQUIPMENT

WARNING

Oxygen accelerates combustion and can be explosive when exposed to contaminants (hydrocarbons). Non-oxygen clean equipment, hoses and fittings can contaminate the unit and the equipment it is used with. Make sure the test equipment, support equipment and tools are oxygen cleaned before use.

DESCRIPTION	RANGE	RESOLUTION	ACCURACY
Pressure Gauge	0 - 100 psig	0.1 psig	± 2 psig

NOTE

The pressure gauge must be calibrated and currently within the calibration interval.

SUPPORT EQUIPMENT

DESCRIPTION	SPECIFICATION	USAGE
Quick Connect	1/4 in. Female Swagelok	Alarm connection interface to hose
Hose	1/4 in. with fittings	Source gas delivery
Tee & fittings	1/4 in. & various sizes	Connect equipment for testing alarm
Pressure Regulator	0 - 100 psig	Throttling oxygen source pressure
Oxygen Gas Source	90 - 96% Oxygen @ 200+ psig	Test gas source
Electrical Power Source	120 Vac @ 15 Amp	Power for 792379-001
Electrical Power Source	240 Vac @ 15 Amp	Power for 792379-002

CONSUMABLES

- ☛ Leak detection compound, oxygen systems, MIL-L-25567D, Type 1 (Nupro Snoop[®] liquid leak detector)
- ☛ Clean dry shop towels

TEST EQUIPMENT SETUP

WARNING

Contaminants in oxygen support equipment can cause fire and explosive reactions. Make sure the area you are using is clean and well ventilated.

1. On the oxygen source bottle valve, connect the pressure regulator (see Figure 1.).

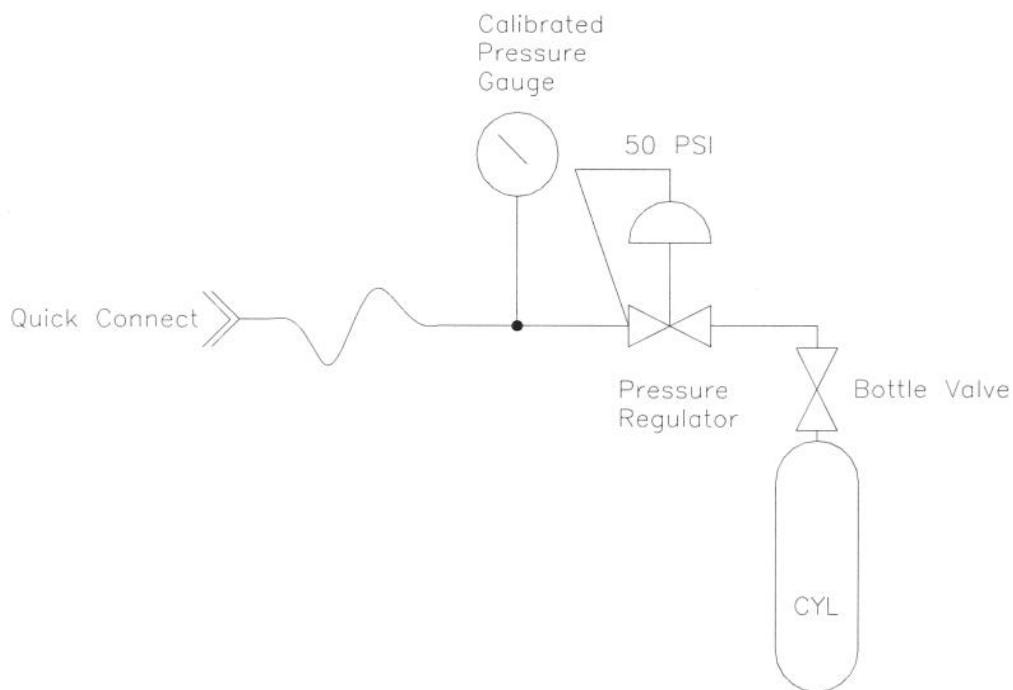


Figure 1. Test Equipment Setup

2. Connect the tee fitting onto the regulator.
3. Connect the calibrated pressure gauge onto the tee fitting.
 - a. Use an adaptor fitting as necessary.
4. Connect the hose onto the tee fitting.
5. Connect the quick connect onto the hose.

PROCEDURE

1. On the alarm, remove the screws and the cover.
2. Remove the cap from the oxygen inlet port (quick connect) (see Figure 2.).

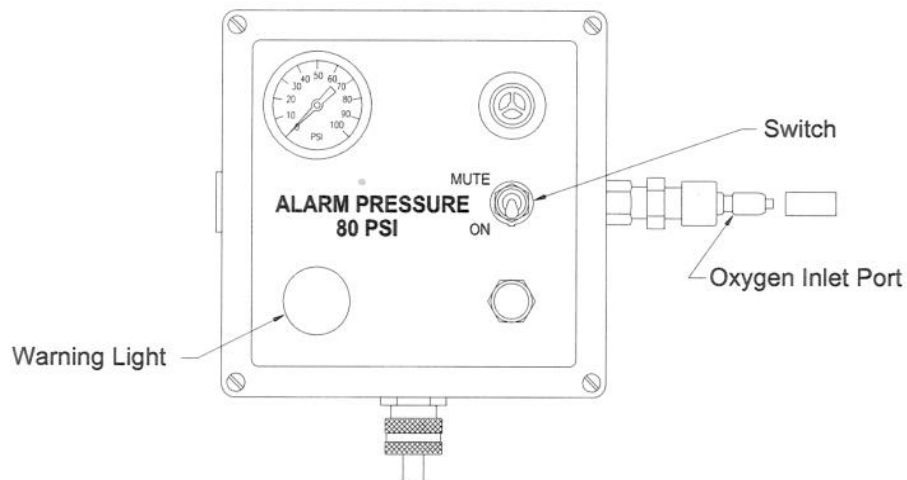


Figure 2. Alarm Assembly

3. Connect the oxygen source onto the oxygen inlet port.
4. Set the ON/MUTE switch to ON.

WARNING

When power is applied, the inside of the alarm box has 120 Vac on the terminals of the mute switch, warning light and pressure switch. Wear protective gloves while working inside the alarm box.

5. Connect the alarm to the 120 Vac power source.
The warning light illuminates and the alarm sounds.
6. Set the ON/MUTE switch to MUTE.
The alarm silences.

7. On the oxygen source, slowly apply 50 psig to the alarm (see Figure 3.).

IF	THEN
Warning light is illuminated	a. Adjust the pressure switch adjustment knob counterclockwise until the light just extinguishes. b. Adjust the knob clockwise and then counterclockwise illuminating and extinguishing the light repeatedly until it just extinguishes.
Warning light is extinguished	a. Adjust the pressure switch adjustment knob clockwise until the light just illuminates. b. Adjust the knob counterclockwise and then clockwise extinguishing and illuminating the light repeatedly until it just illuminates.

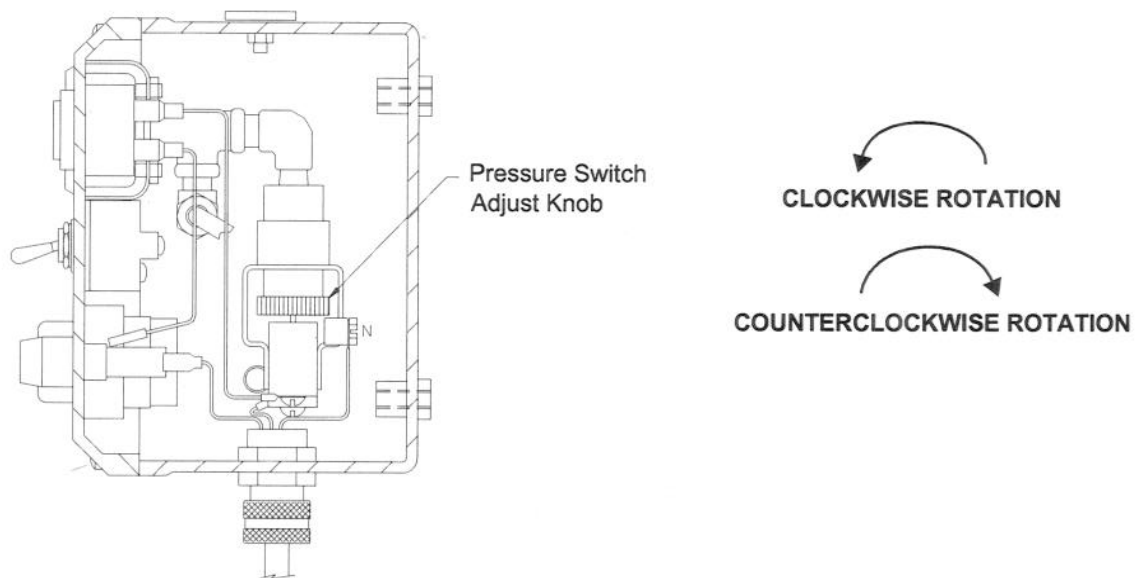


Figure 3. Alarm Assembly Interior

8. On the oxygen source, slowly increase the pressure to 55 psig.
9. On the alarm, set the ON/MUTE switch to ON.
The alarm is silent.
10. On the oxygen source, slowly (very) decrease the pressure until the alarm sounds (warning light illuminates).

IF	THEN
The alarm does not sound at 50 ± 1 psig	a. Repeat Steps 7. - 10.
The alarm sounds at 50 ± 1 psig	a. Repeat Steps 8. - 10. about 5 times and make sure the alarm set point is correct and repeatable.

11. Compare the calibrated gauge indication to the alarm gauge indication.

Gauges should indicate ± 2 psig difference maximum.

12. Disconnect the alarm from the power source.
13. On the oxygen source, slowly increase the pressure to 60 psig.
14. Apply leak detection compound to the alarm internal components.

IF	THEN
Leaks are found	a. On the oxygen source, slowly lower the pressure to 0 psig. b. Tighten the loose connection. c. Repeat Steps 13. - 14.
No leaks are found	a. Clean the leak detection compound from the alarm.

15. On the oxygen source, slowly reduce the pressure to 0 psig.
16. Disconnect the oxygen source from the alarm and install a clean cap on the alarm inlet port and hose quick connect.
17. Install the alarm cover with the screws.
18. Mark the alarm for 50 psig (use a label or tag).

NOTE

A 50 psi label is available from PCI; request part number 793265-007.